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that he can devote his full time to public health work. It will also be important to provide both the provincial and district medical officers with sufficient transportation to enable them to discharge their duties.

VI. Community Planning and Facilities

In the past, communities have unavoidably grown up rather haphazardly. The older parts of the cities are characterized by great congestion, narrow and winding streets, open drains and generally unsanitary living conditions. Livestock are frequently kept in buildings and backyards of major cities. Overcrowding has been greatly aggravated by the influx of people from the land seeking to escape the hard conditions of life in the rural areas and to find opportunities for employment in the cities. Many of these have simply squatted on vacant lots and on the outskirts of cities; they live in primitive, poorly constructed mud and mat huts under conditions of great squalor and without sanitary facilities. Baghdad has about 60,000 of these so-called *sarifa* dwellers and Basra probably no less than 20,000. In each case most of them have immigrated from the province of Amara where problems of land tenure and the silting and salting of land have made conditions of life unusually difficult. Sewage systems are lacking in all of the cities.

Villages are generally clusters of mud houses where, in many cases, men and livestock are not segregated. They have usually grown up around wells or along streams and irrigation canals under conditions where water pollution becomes inevitable. For the most part, safe water supplies are not available. The current flight from the land cannot be arrested as long as the ordinary village lacks the most elementary facilities of sanitation, medical aid, clean drinking water, and schooling, and generally offers little attraction to the person who wants to improve his lot and enjoy a reasonably comfortable life.

Dwellings of mud and mats are not of themselves undesirable. They have the advantage of cheapness and, when properly constructed, are well adapted to climatic conditions in Iraq. Often,

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362 however, they are poorly built and too small; and they are crowded
342 together on sites and under conditions which breed disease.

Need for Community Planning

341 In recent decades there has been a growing awareness of the need for community planning, better housing and community facilities. With respect to villages, little has as yet been done except for the planned development of the Dujaila project. Here some effort was made to have houses erected according to standard specifications and to depart from the village-type of settlement by requiring that houses be erected in groups of four on the adjoining corners of four land allotments. As an aid to town and city planning there has been created within the Department of Municipalities of the Ministry of Interior a small planning section to provide "technical advice as regards municipal schemes for the organization and planning of cities and towns in accordance with modern principles". The municipalities themselves have been charged with "the division of the town into areas having regard to its development capacity and the specifications of plans to be followed for the improvement of streets, public places and buildings in such areas". The final responsibility for planning has, however, remained unclear. The surveys, plans and partial plans have generally been hastily drawn and with little regard for the actual conditions prevailing in the community. In any event, municipalities have for the most part continued to develop without reference to any plans. In many towns new streets have been arbitrarily cut through residential and commercial districts with little concern for real needs or for the people affected. The various ministries concerned with the erection of schools, hospitals, public buildings and bridges generally locate their projects without reference to an overall plan and without consultation with each other.

361 There is today a real need for integrated community planning.
647 The Mission believes that it would be desirable to work towards the establishment of a genuine Community Planning Office in the Ministry of Interior. Such an office should ultimately be staffed with an adequate number of experts versed in architecture, engineering and other aspects of town planning. The first step might be to strengthen the existing planning section in the Department of

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relieved by low ranges and depressed areas of which the major one is the Wadi Tharthar. It is sparsely inhabited by pastoral nomads although in the North some settled farming, made speculative by irregular rainfall, is carried on.

The second region, extending downstream from Ramadi on the Euphrates and Baghdad on the Tigris and including the Diyala River Valley, is the area where most irrigation projects have been carried out in the past. Pump irrigation predominates on the banks of the three rivers where the land is high and water is easily accessible. For the more remote areas flow irrigation is provided by canals dependent on the Hindiya barrage on the Euphrates, the Kut barrage on the Tigris and the Diyala weir on the Diyala River. Here flow irrigation between the two main rivers is facilitated by the fact that in the Baghdad region the Euphrates is higher than the Tigris, while below Baghdad the Tigris is above the Euphrates. In this region barley is the principal winter crop, followed by wheat. Summer crops are limited by lack of water, but among them cotton has become in recent years by far the most prominent, leaving sorghum, sesame, green gram, corn and millet far behind. Fruit culture is important. Dates are widely grown, both for domestic consumption and for export; and the Diyala Valley in particular produces excellent citrus fruit. Rice is an important crop between Nejf and Diwaniya on the Euphrates and around Rumaitha farther down the river. The country's major concentration of population lies in the region comprising the district about Baghdad and the provinces of Hilla, Kerbela and parts of Kut and Diwaniya. It includes the capital, Baghdad, a city with a population of 550,000 and the leading commercial and industrial center of the country.

The third region—the Basra, Nasiriya, Amara triangle—is generally one vast marsh during the spring floods. Here the rural dwellings are of reeds and brushwood, in contrast to the rest of the country where mud huts and, in the mountains of the North, stone houses predominate. Rice grown in the naturally inundated marshland is the staple food, varied by fish; and the water buffalo is the prevailing type of livestock. Here also is the world's largest date palm belt stretching along both sides of the Shatt al Arab and contributing one of Iraq's principal exports. Basra, Iraq's only port, is the largest city of this region and handles most of the country's foreign trade.

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II. Rural Communities

About one third of the people live in towns and cities; of the remainder, a small proportion are nomads and the bulk live in villages. In terms of population, therefore, the villages are the more predominant type of community. Although the distinction between a village and a small municipality is, as already noted, somewhat arbitrary, even the smallest municipalities are centers of local administration and have certain facilities of a higher standard than the villages. The distinction will, in any event, serve for present purposes.

Virtually all the rural population live in villages, isolated dwellings being very rare. Landowners, in fact, frequently count their fellahin by villages. Except for the extreme northwest, where there are seminomadic pastoral tribes who live in settled communities for only part of the year, the inhabitants of the villages are mainly cultivators. A few members of the community may have other occupations such as the tending of sheep and goats, the keeping of small shops and coffee houses or the building and repairing of huts. There are, also, villages where a considerable number of the people are engaged in handicrafts (e.g. weaving) but these are rare.

In the North, stone is generally available and is the commonest material for buildings, while in the South and the Center, mud is the usual material. The mud plaster of walls is reinforced with straw or cow dung to minimize the washing of clay in the mortar when it rains and to prevent temperature cracks. Where the climate is drier and palm leaves or reeds are available, especially in the marshes and palm belt of the South, these materials are more extensively used.

Another feature which distinguishes the North from the rest of the country is the greater permanence of the villages. The main reason is probably that there is a much older tradition of settled cultivation than exists in the recently irrigated areas. Not only are there more small-holders, who would naturally have a close association with their land, but the fellahin also appear to have A GREATER SECURITY OF TENURE.

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361 a greater security of tenure. Other factors, which have no doubt affected the permanence of villages in some parts of the irrigation zone in central and southern Iraq, are the salination of the land and the silting of canals. In such cases, the fellahin have no choice but to abandon their villages.

In spite of these differences, however, the villages have a number of characteristics in common. The typical village is a cluster of huts huddled together without any orderly design. There are no communal facilities or open spaces for the recreation of the 342 children. The huts are so constructed as to keep out heat, cold and sandstorms at the minimum expense. Consequently, they consist of a single room with thick walls and a doorway, which usually opens on a small enclosed yard that is used for both cooking food and keeping draft animals. In order to avoid sand and sunlight, windows are either very small or totally lacking; sashes are expensive. Furnishings are limited to such elementary necessities as a mat and a plain table or a bench. Sanitary facilities, including latrines, are generally lacking.

312 The villages are necessarily located near a source of water, by a canal in the irrigation zone, by a stream or a well in the North. The water is not piped, but must be carried from its source to wherever it is used. Nor is it purified, although the canals in the irrigation zone may be heavily polluted. The water which has been used by men for washing and in which animals have immersed themselves while drinking is often used for human consumption. The constant trampling of the canal banks for these purposes leads to leaks and, hence, to stagnant pools near the adjacent village. Where the source of water is a well, the earth nearby may be dug out for use in the construction of houses and so, similarly, a [364] stagnant pool may be the result. Such pools, combined with the total absence of any sanitary disposal of waste and garbage, constitute a serious danger to health.

361 137 214 Trees are rarely seen in the villages, although they would give relief from the sun and from sandstorms. Trees would also provide firewood instead of the fuels currently used—animal dung, which could be used instead as fertilizer, and brushwood, which has to be gathered with considerable effort. Small gardens for vegetables are unknown. In fact, fruit and vegetables are almost

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they are elaborate and expensive to construct, require a great deal of funds and official attention to maintain, and the benefits are generally beyond the comprehension and appreciation of the average villager. They should, on the contrary, be simple enough so that the villager can both understand the improvement and be anxious to undertake most of the work himself, and will continue to do so for other future improvements. Otherwise, the people of other villages will merely admire the demonstration units and will feel that model villages are beyond their attainment.

New Settlements

Nowhere has the government a better opportunity for the planning of good rural communities than in new settlements such as Dujaila. Settlement in Dujaila began in 1946 and it is clear that a considerable effort was made to give the community an improved layout. In May 1951, there were 1,058 cultivators settled in square lots of 100 donums each (500 by 500 meters). The portion of the Scheme which has been laid out has groups of four houses constructed at the adjoining corners of four lots.[1]

The cultivator is obliged by regulation to plant a garden of a specified area and to build his own house and those of his helpers within the unit under his possession. The Committee which administers the Scheme locates and determines the number of houses and decides on the period within which construction shall be completed. The houses are made of mud or mud bricks, and each consists of a bedroom, a living room, a storeroom, a kitchen, a bath, a water closet and a stable covering a total area of about 80 square meters; a staircase leads to the flat roof. There is also an enclosed courtyard of about 220 square meters which is used by both the family and its livestock. Separate entrances are provided for the people and the animals.

Although the Dujaila settlement is a great improvement on the average village, it has a number of defects. The present layout makes it possible for each cultivator to have his house and those of his assistants on his own unit, but it has spread the population sparsely over a wide area resulting in long distances to community facilities, such as schools and stores, and a lack of the

[1] See diagram on pp. 348 and 349.

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port traffic and such associated activities as the packing of dates, cleaning of barley and flour-milling (a new industry), Basra is closely bound up with the development of the new oil field at Zubair, some 10 miles inland. Basra, like Baghdad, received a large influx of people during the war, especially from nearby Amara.

The population of Kirkuk, the fourth city, is believed to have tripled in the last 25 years as a consequence of the development of Iraq's major oil field. The two holy cities in Kerbela province, Kerbela and Nejf, have a large transient population due to pilgrim traffic from Iran and other Moslem countries. These two cities have many handicraft workers in such trades as jewelry, brass-work and embroidery.

These six cities, together with Amara, are the only ones with a population of over 40,000. With a few exceptions, such as Khanaqin with its small oil field and refinery, the other municipalities function primarily as centers of administration and trade for surrounding districts. Broadly speaking, their size varies with their administrative importance. Of the provincial capitals, other than those already mentioned, five have a population between 20,000 and 40,000 and three between 10,000 and 20,000. Of the remaining municipalities, none has a population exceeding 20,000; less than 30, most of them centers of *qadhas,* have a population of more than 6,000.

Despite differences in size and function, the cities and towns have a number of characteristics in common. The older parts are usually congested with narrow streets and alleys. Houses are built around courtyards, the only opening to the street being the main doorway. The houses usually have a flat roof or a partially open second story for sleeping outside in the summer. Brick is the commonest building material; most of the larger towns have brick-works nearby, many of which are small and primitive. There are also a few modern concrete and steel buildings, mainly in Baghdad. Schools and hospitals can be found in the heart of these congested areas. An important section in every city is the *Suq* or bazaar, a network of alleys, often covered by crude roofs forming a series of arcades. These alleys are lined with the small shops of retail merchants and handicraft workers in textiles and metals. The *Suq* is usually located near the principal mosque.

7: International Bank N. S-4 (1951) 1952 MH1 Iraq MH1

362 166 widely but probably at least 60,000 have migrated to Baghdad and 20,000 to Basra. Amara province is the heart of the rice-growing marshland, where the water buffalo is the prevailing livestock. The immigrants have naturally tended to recreate the conditions of life to which they are accustomed and which will enable them to raise buffalo. An area just outside the eastern bund of Baghdad has been settled by these people and converted to their normal mode of life. A series of stagnant pools for the cattle is interlaced with narrow paths just above the water-level and surrounded by a disorderly array of makeshift huts, called *sarifas*. Being outside the bund, the area is subject to spring floods in years of high water. In Basra the immigrants have settled along the banks of the existing canals. Conditions there are nearly as bad as in Baghdad.

It is clear that the process of migration and the creation of such slums can only be halted by eradicating the cause, namely, the harsh conditions of life in Amara and other places from which the migrants come. Meanwhile efforts will have to be made to resettle those who have already come, since, apart from the plight of the people themselves, these slums are a menace to the health of the entire population of the cities.

362 The few measures so far taken to resettle the sarifa dwellers have not been successful. In Baghdad the Ministry of Social Affairs made a plan for 8,000 mud huts at Shamiya which is about 12 kilometers from Baghdad. Several sample huts of defective construction were erected at the site at a cost of ID 35 each. This plan contemplated the housing of approximately 30,000 people from the sarifa district by giving each family 120 square meters of land apiece on which they were to build their own houses according to the samples already constructed. Each hut would have had a covered floor area of 43 square meters consisting of two rooms, a hall and a water closet. The main pipelines for a fresh water supply had been provided and a clinic set up for the use of future residents. The plan, however, was later abandoned on the grounds that the site was too far from Baghdad where most of the prospective residents are employed.

[342]

Experience in Basra has been little better. There, the initiative came from the Municipality, which now has under construc-

7: International Bank N, S-4 (1951) 1952 MH1 Iraq MH1

362 The quarters which have so far been provided for laborers and artisans of the Iraqi State Railways are: 283 units consisting of two-room quarters, 2,090 units of one room and 60 units of sarifas.

Shortly after World War II, the Iraq Petroleum Company embarked on a large housing project in order to provide accommodation for its entire staff of artisans and their families. This was done because the increase in its activities and employees had caused a strong pressure on the available housing in Kirkuk. When rents became exorbitant, the company give its employees a rental allowance, but this failed in its purpose as rents rose by a corresponding amount almost immediately. The project has already succeeded in lowering rents in the town, the artisans' families who have moved in having released space in the town for laborers' housing. It is not proposed to extend the project to laborers' housing, first because of the shortage of materials and secondly because of the generally transient nature of the unskilled labor force.

The present housing project under construction in the Arrapha Ridge Area near Kirkuk will be finished in five to six years and will eventually consist of 1,028 houses. Of this number, 284 have been completed and accommodate about 1,485 people. At present [342] there are 58 more under construction. There are three basic types of houses: the one-bedroom, the two-bedroom and the three-bedroom semi-detached and attached units. Except for relative sizes and the number of bedrooms, the various types of houses have the same number of rooms: a living room, a kitchen, a storeroom, a bath, a water closet, a veranda and an enclosed courtyard. Stairs lead up to the flat roofs. The houses are surrounded by gardens.

The houses have walls made of bricks and stones with portland cement mortar, floors and ceilings of concrete, and window and door sashes of steel and glass. They are provided with both cold and hot water and with electricity. Each one-bedroom unit costs about ID 1,400 to build including utilities, and rents for ID 3.6 per month plus a service charge for water, power, etc., of ID 1.2. The biggest or three-bedroom unit costs about ID 3,000 and rents for ID 7.5 per month plus a service charge of ID 2.1.

The housing project has been planned on the neighborhood unit scheme—there being two units with schools, open spaces, stores and clinics. In addition the entire project will ultimately

8:Campbell T-5 (no date) 1949 MH1 Iraq MH1

would know the difference.' They went on to point out large numbers of sheep dotted around the horizon and they explained that had there been a large number of camels with a few sheep, then bedouin would have been indicated. Instead there was a large number of sheep with a few camels, indicating Arabs. They had to go on to explain that by Arabs they meant the great landowning Shia tribes, who are in the main cultivators of rice, dates, barley and a variety of other crops, but they send out their sheep on long treks through the desert in charge of some of their families in search of grass.

Most of the Arab tribes are dwellers in houses or clean, cool huts made of reed matting, which allows for a constant current of air through the hut, and prevents the temperature from rising to that of an oven in the hot sun, like a house. Many of these stories were told in a large guest house or tent pitched amongst the houses, with a background of sound varying from that of the cooking of a meal of several roast sheep to the powerful thump, thump, thump, of the great pumps. These pumps deserve mention, since they are often a tribe's principal pride and source of wealth. At one place I was surprised to hear that a boy's name was Rustam, since this name is more common amongst Persians and Kurds than amongst Arabs, but it was explained to me that he was named after the pump, and I understood when I saw the name Rustom stamped on an iron plate on the great cylinder.

The Arab tribes have a great military history of which they are justly proud. It is long and somewhat complicated, and to give in full the history of a single tribe as told by the sheikhs would fill a book greater in size than this. I will, however, give a précis of the history of that great group of tribes which were known as the Muntafiq.

539
776 WHAT do you know of El Iraq, you who are boys? I was an old man before the First German War, and I know the country and its history, yet you say there is no monster in the Hor el Hammar. I have seen it, thirty years ago, for this monster takes on the shape of a woman, and it beckons to a man that he may enter the lake, and every twelve years it must eat a man. I have seen it beckoning on the edge of the lake on the nights when there was no moon, but I did not follow it, for I knew its history, and I know that a man must carry a needle when away from his house at night, yet you know nothing of these things, and you are like Abdul Rehman Abu Sultan, who was so ignorant that he desired nothing but money, and who was so foolish that he tried to rob the dead without listening to warnings or heeding cautions that the sons of Adam shall not meddle with magic and strange matters, nor shall they interfere with those that live beyond the end of the world, nor shall they disturb those that await the Last Day.

x539 Abdul Rehman Abu Sultan was a carpenter of Basra, and he lived in his house with a young and lovely wife and with a fine son, yet he was not happy, for his earnings
• [342 were few and his house was a poor house of bowari
262] matting and his food was but dates and bread. And winter came and the rains fell and everything in Abdul Rehman's house was wet, even to the blankets of his bed, for the matting did not keep out the rain, and the cold wind whistled through the walls of his house, and he was in a miserable and desperate state, so he went to the coffee-house to get warm and he met there his friends, and he discussed his condition, saying: How can I get money to buy a dry house, and a sheep for the feast and clothes for my wife? And they replied, and said: Did we but know a

8cRoyal Institute of International Affairs U-4 (no date)1954 M1 Middle East
9Iraq MH1

874 ics in agricultural areas. Foreign advisers and instructors are being extensively employed. *Commercial:* secondary commercial schools in Baghdad, Mosul, Najaf, with night classes in Baghdad and Najaf. Commercial classes have been introduced into the ordinary secondary school curriculum in various cities. *Nursing and Domestic Science:* Schools of Domestic Science, Nursing, Midwifery in Baghdad. It has been proposed that instruction in the state vocational schools should be of such a standard that graduates could proceed at once to the relevant higher institutions. Other vocational establishments are the Iraq State Railways workshop training school in Baghdad and the IPC's technical training centre in Kirkuk.

873 An Institute of Fine Arts in Baghdad gives instruction in music, painting, sculpture, and drama and trains teachers in most of these subjects.

873 217 *Department of Antiquities.* The Department of Antiquities maintains an extensive programme of excavation, restoration, research and publication and has gained recognition for its work in international academic circles. It controls five museums in Baghdad, one each at Samarra and Babylon, and has recently opened one in Mosul.

Economic Survey

651 439 433 The greater part of Iraq's national revenue will soon be drawn from her oil, which represents an important fraction of the world's supply. Her general economic organization is nevertheless agronomic. Agriculture and animal husbandry practically suffice for her internal requirements of foodstuffs and provide, after oil, most of her exports.

135 Apart from oil, raw materials are sparse. There are deposits of salt, low-grade bituminous coal, gypsum, and sulphur and, in more limited quantities, of potassium nitrate, crystal quartz, sandstone, and dolomite. Building stone is found only in the 339 hill districts; in the alluvial plain mud and reeds are the com- •342 mon building materials of the poor, but houses of locally made burnt bricks are common in the towns.

185 652 [511] In 1950 a Development Board was established with the function of drawing up and, after parliamentary approval, executing a general economic and financial plan for developing the country's resources and raising the standard of living; it was to include but not be limited to projects for water conservancy, flood control, irrigation, drainage, industry, mining, and improvement of river, land, and air communications. For the execution of its programme the Board has been allocated 70 per

St Harrison D-4 (1919-1924) 1924 MI Middle East
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[Marsh Arabs]

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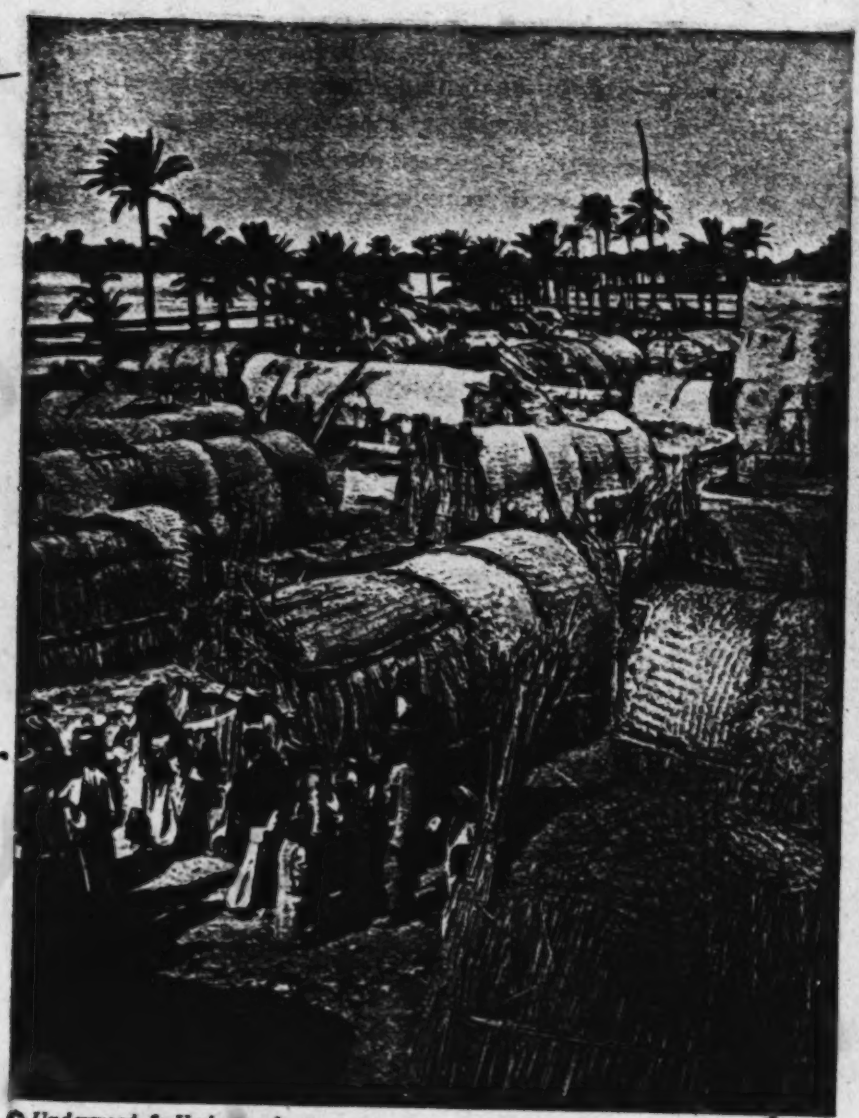

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AN ARAB VILLAGE ON THE LOWER EUPHRATES

facing page 112

[Marsh Arabs]

243 Bombay was. "No," he said, "here we make our bread
262 from rice flour. When the wheat crop is a failure, as in the past year, we have almost nothing else."

312 These overflow districts,* which are marshes in the spring when the rivers overflow, dry down to hard soil later in the year. To keep the water high for a few weeks longer than it would naturally remain so, temporary dams are constructed across some of the smaller streams, leaving an opening to allow boats to pass and water to run through. These dams persist in the face [342] of a strong current in a way that is surprising. Mud, tree branches, mats, soil and the like seem to be the only building material, for there is no stone within hundreds of [476] miles. The dams require a large amount of labor, and of course are coöperative enterprises. Possibly because of this necessity for coöperative effort, the Marsh Arab communities appear to have developed a good degree of community spirit.

361 Like their race everywhere, these Marsh Arabs do not live in isolated individual houses in the midst of their fields but collect in larger or smaller towns, some of them of considerable size. These towns are located usually in the fork of a river, or where several streams come together. In Lower Mesopotamia there are many small channels that carry water either out of the main
501 river or into it. The Marsh Arabs get about in picturesque, high-prowed, black river boats, black because they are covered with a thick coat of native bitumen which wells from the ground in one or two places in Mesopo- [135] tamia and is an indication, so the engineers tell us, that petroleum is to be found in that country. These river boats, which are the one means of transportation, are built somewhat on the lines of a canoe and take consid-

*[along the last 100 miles of the Arab river from Gurna to the Gulf -- Analyst]

5: Harrison D-4 (1912-1924) 1924 M1 Middle East
Iraq MH1

[Marsh Arabs]

501 erable skill to navigate. They are capable of great speed and are driven either by a sail or by oars as the occasion requires. To a stranger they seem very unstable, but the Marsh Arab, who has practically lived in them ever since he was a baby, finds them abundantly stable and perfectly safe.

342 From a distance the houses occupied by these people are very picturesque. The reeds that grow in great abundance in the marshes of Lower Mesopotamia are gathered and when dry are tied in great bundles perhaps two feet in diameter. They are ten to fifteen feet tall or even more, and two bundles tied together at the tops are bent over to form an arch. Each of these arches forms one of the ribs of the house. They are placed every four to six feet, giving an air of solidity and dignity to the structure that is most unusual for this sort of simple architecture. Over these ribs a mat roof is constructed which is surprisingly tight even in the heaviest rains. The houses vary in size, and the largest ones, which serve as guest halls for the sheikhs and the rich, may be seventy-five feet long and twenty feet broad.

423 This agricultural district is peculiar in that while it
621 has a settled community engaged in agricultural pursuits, there is no private ownership of land. The Marsh Arabs form a group almost untouched by Europeans. In the one district we visited all land is owned by the government, in this case a sheikh far removed from the district.
427 The only tax that he levies is a moderate rental for the
651 land. Apparently there is little difficulty in getting land;
425 at least no one complained of any trouble of that sort, nor does there seem to be any difficulty in keeping the same plot of land indefinitely if the cultivator wishes to do so.
000 The local governor is an efficient and more or less benevo-

21: Fisher S-4 (no date) 1950 M1 Middle East
Iraq MH1

Only three cities, Baghdad, Mosul, and Basra, have a total population exceeding 100,000. *Baghdad* (population 1943, 300,000) lies on the Tigris at the head of navigation of the river, and in the 'waist' of the lowlands, where the Tigris and Euphrates approach closely to each other, and hence give the best possibility of constructing irrigation canals. This narrow inter-riverine zone also provides a convenient crossing-place, since the marshland is reduced in extent and the firmer platform of steppeland provides a useful east-west route between the Mediterranean and Iran. The region of Baghdad thus has an important nodal position at the junction of routes from east and west across the desert, and from north, north-east, and south along the river valleys. It should be noted that all the factors mentioned above apply to a region and not to an actual site.

It is easy to see why a town should have grown up within the district of Baghdad, but the extra smaller scale features that usually fix the site of a town in one particular spot are less in evidence. Local changes in topography due to the shifting of drainage channels have led to the growth of three separate cities at various periods, and so within the Baghdad region there has arisen first Babylon, the ancient capital that lay closer to the Euphrates, some 60 miles to the south of modern Baghdad. Babylon was in turn succeeded by Ctesiphon, only a few miles from Baghdad, and this city remained the nodal centre until superseded by Baghdad in the early Muhammadan era. Baghdad itself dates only from the 8th century A.D., and a 'golden age' occurred when its Abbasid rulers supplanted the Omeyyads of Damascus and made it the capital of the Moslem world. Baghdad suffered greatly from Mongol invasion, and most of the older buildings have disappeared. The modern city is sprawling and undistinguished—in fact, an extreme disappointment to visitors who may wish to evoke the 'Arabian Nights'. Many of the poorer houses are of mud, and flooding is a frequent feature (Fig. 65).

Baghdad is the commercial centre of the region, with numerous, but small workshops and distributing houses. Industry is, as we have seen, mainly confined to bazaar crafts—textiles, metals, foodstuffs—and to the production of pottery and building materials. Trade is for the most part in the hands of Europeans, Jews, and Armenians, with Iraqi Christians as clerks and supervisors. An upper class—mainly Sunni Moslems—carries on the administration of the country; and a third element in the life of the city is a large group of absentee landlords.

63:Simmons et al G-5 (1941-1951) 1954
M1 Middle East
IRAQ MH1

of a nutrition institute with facilities for research has been proposed.

Housing

The dwellings of the rural cultivators, the nomads and the townspeople show considerable variation, conforming to the social customs of the people and the building materials at hand. The villages in the rural areas are typically compact. In the central plains, the houses are usually constructed of sun-dried mud bricks, with flat roofs of palm trunks covered with mud or palm leaves. They may contain one or several rooms opening into a central courtyard, and in the more prosperous families they sometimes have two stories. The livestock are sheltered in sheds in the compounds, in close proximity to the household. Stone replaces mud bricks in many sections of the northern highlands, where the roofs are built of mud or timber. In the mountain districts the villages often nestle on the hillsides surrounded by series of cultivated terraces.

In the south, the houses are traditionally made of woven reeds or palm fronds, although the compounds may be enclosed within mud walls. Woven reed, or *serifa*, huts are used by the seasonal laborers in the date groves, and are being introduced to an increasing extent by impoverished migratory workers in the cities of central and southern Iraq. In 1950, it was estimated that there were at least 60,000 *serifa* dwellers in Baghdad and 20,000 in Basra. Huts are put up on any convenient vacant plot of land and are frequently interspersed among the modern homes in the residential sections. Such *serifa* settlements, in which the living conditions are primitive, create serious public health hazards. More elaborate reed houses, built on islands or on brushwood or reed rafts, are characteristic of the villages of the "marsh Arabs" in the rice-growing areas and swamplands of the southern delta. In contrast, the nomadic peoples live in black tents of hair cloth or skins, of a type which has persisted for centuries.

p. 26(B)

63:Simmons et al G-5 (1941-1951) 1954
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As in other countries, all gradations in housing, between the palatial homes of the wealthy and the congested hovels of the poor, are found in the cities. Brick and cement are the usual building materials, although stone is widely used in Mosul and other towns in the north. In Baghdad, Arabic and Turkish styles of architecture predominate in the older sections of the city; modern villas, in the newer residential developments. Basra is a composite of 3 townships: Basra City, a typical Arab town; Ashar, the business community; and Margil, the new town and port center. In the oil field areas, housing estates are maintained by the operating companies for the benefit of their workers.

ENVIRONMENT AND SANITATION

Water Supplies

Water supplies are reasonably plentiful in the inhabited portions of the country. In the highland areas of the north and the northeast, water is obtained from streams, springs or wells, but in the alluvial plains, where the rainfall rarely exceeds 2 to 6 inches, it is taken entirely from rivers, canals, lakes or wells. Water is scarce in the desert regions but is available in some localities from waterholes, dug in dried stream beds, or from occasional permanent deep wells. The well waters in the mountain districts are sometimes highly mineralized, while shallow well supplies in the lower delta are generally brackish.

The domestic water supplies are treated before distribution in the larger cities and towns, but throughout rural Iraq they are unprotected and frequently polluted. The municipal water supply for the city of Baghdad is pumped from the Tigris River at 4 stations—3 on the left bank and 1 on the right. The entire supply is treated by sedimentation and chlorination, while filtration plants are also operated in connection with the pumping stations at Karrada and Sarrifiya, on the left bank. It is piped to individual service connections in all sections

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